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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09 830,631	04 30 2001	Hiroyuki Ito	50212-225	1816

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EXAMINER

NGUYEN, KIET TUAN

ART UNIT	PAPER NUMBER
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2881

DATE MAILED: 01 08 2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/830,631

Applicant(s)

Ito et al.

Examiner

K. NGUYEN

Group Art Unit

2881

— The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address —

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- ☐ Responsive to communication(s) filed on _____
- ☐ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 111; 453 O.G. 213.

Disposition of Claims

- ☒ Claim(s) 1-6 is/are pending in the application.
- Of the above claim(s) _____ is/are withdrawn from consideration.
- ☐ Claim(s) _____ is/are allowed.
- ☒ Claim(s) 1-6 is/are rejected.
- ☐ Claim(s) _____ is/are objected to.
- ☐ Claim(s) _____ are subject to restriction or election requirement

Application Papers

- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119 (a)-(d).
- ☒ All ☐ Some* ☐ None of the:
 - ☒ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____
 - ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a))

*Certified copies not received: _____

Attachment(s)

- ☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 9
- ☒ Notice of Reference(s) Cited, PTO-892
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Interview Summary, PTO-413
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Other _____

Office Action Summary

Objected Informalities

The disclosure is objected to because of the following informalities:

In The Claims

Claim 4, line 6, after "ion beam" should be inserted with -- guide --.

Appropriate correction is required.

Objected Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the frame member as recited in claim 6 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Rejection Under 35 U.S.C. 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4 are rejected under 35 U.S.C. 102(b) as being anticipated by Ono et al.

Ono et al. disclose, in figs. 1-15, an ion implantation system. The system includes an ion source section 1; an ion implantation section 8; a charged particle generator 31; a beam guide tube

section 9 having an inlet aperture, an outlet aperture and an opening; and a shield section 42 located between the opening and the outlet aperture for irradiating charged particles generated from the generator 31 out of a wafer W.

Rejection Under 35 U.S.C. 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ono et al.

Ono et al. disclose all the features as discussed above except a flat plate shield surface made an acute angle with the internal wall surface of the guide tube as recited in claims 5-6; and a frame member for supporting the flat plate as recited in claim 6.

Using the shield having a flat plate surface to make an acute angle with the internal wall surface of the guide tube and the frame member for supporting the flat plate is considered to be obvious variation in design, since the size and shape of an element is consisting of one many sizing and shaping means for operating the element and mounting an element to the other element is well known in the art, further the shield having the flat plate surface to make an acute angle with the internal wall surface of the guide tube is well known in the art for directly deflecting the charged particles (as disclosed, in fig. 2, the element 82 of Kimber U.S. Patent No. 5,378,899), thus would have been obvious to one skilled in the art to use the shield having a flat plate surface to make an

acute angle with the internal wall surface of the guide tube for deflecting the charged particles away from the wafer and the frame member for mounting the flat plate in the Ono et al. system for neutralizing the ion beam.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- 1) Kimber discloses an ion implantation system having a flat plate shield surface;
- 2) Sakai et al. disclose an ion implantation apparatus having a deflecting member for deflecting charged particles; and
- 3) Kellerman et al. disclose an ion implantation apparatus having an electron shower for neutralizing an ion beam.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner *Kiet T. Nguyen* whose telephone number is (703) 308-4855.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0956. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9318.

K.T.N/Primary
January 6, 2003

2003